

# Jean Baptiste d'Espinose de Lacaillerie

## List of Publications by Year in descending order

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89  
papers

4,623  
citations

117625

34  
h-index

102487

66  
g-index

90  
all docs

90  
docs citations

90  
times ranked

4900  
citing authors

#	ARTICLE	IF	CITATIONS
1	An environmental evaluation of geopolymer based concrete production: reviewing current research trends. <i>Journal of Cleaner Production</i> , 2011, 19, 1229-1238.	9.3	895
2	MAS NMR spectra of quadrupolar nuclei in disordered solids: The Czjzek model. <i>Journal of Magnetic Resonance</i> , 2008, 192, 244-251.	2.1	270
3	Direct synthesis of ALSBA mesoporous molecular sieves: characterization and catalytic activities. <i>Chemical Communications</i> , 1999, , 1967-1968.	4.1	236
4	Understanding silicate hydration from quantitative analyses of hydrating tricalcium silicates. <i>Nature Communications</i> , 2016, 7, 10952.	12.8	155
5	Influence of aluminates on the hydration kinetics of tricalcium silicate. <i>Cement and Concrete Research</i> , 2017, 100, 245-262.	11.0	146
6	Durability of cement pastes exposed to external sulfate attack and leaching: Physical and chemical aspects. <i>Cement and Concrete Research</i> , 2019, 116, 134-145.	11.0	136
7	Flow properties of MK-based geopolymer pastes. A comparative study with standard Portland cement pastes. <i>Soft Matter</i> , 2014, 10, 1134.	2.7	132
8	Decoration of Nickel and Magnesium Oxide Crystallites with Spinel-Type Phases. <i>Journal of the American Chemical Society</i> , 1994, 116, 1707-1717.	13.7	131
9	Solid-state <sup>1</sup> H and <sup>27</sup> Al NMR studies of amorphous aluminum hydroxides. <i>Journal of Colloid and Interface Science</i> , 2003, 261, 320-324.	9.4	114
10	Geopolymers from Algerian metakaolin. Influence of secondary minerals. <i>Applied Clay Science</i> , 2009, 43, 453-458.	5.2	107
11	Mechanical properties and compositional heterogeneities of fresh geopolymer pastes. <i>Cement and Concrete Research</i> , 2013, 48, 9-16.	11.0	98
12	Surface and Intercalation Chemistry of Polycarboxylate Copolymers in Cementitious Systems. <i>Journal of the American Ceramic Society</i> , 2009, 92, 2471-2488.	3.8	95
13	Changes in humic acid conformation during coagulation with ferric chloride: Implications for drinking water treatment. <i>Water Research</i> , 2008, 42, 2111-2123.	11.3	87
14	Effect of supplementary cementitious materials on carbonation of cement pastes. <i>Cement and Concrete Research</i> , 2021, 142, 106358.	11.0	86
15	Fate of coagulant species and conformational effects during the aggregation of a model of a humic substance with Al <sup>13</sup> polycations. <i>Water Research</i> , 2006, 40, 1965-1974.	11.3	73
16	Analysis of multisite 2D relaxation exchange NMR. <i>Concepts in Magnetic Resonance Part A: Bridging Education and Research</i> , 2010, 36A, 153-169.	0.5	67
17	Water Adsorption on Pyrogenic Silica Followed by <sup>1</sup> H MAS NMR. <i>Journal of Colloid and Interface Science</i> , 1997, 194, 434-439.	9.4	66
18	Early reactivity of sodium silicate-activated slag pastes and its impact on rheological properties. <i>Cement and Concrete Research</i> , 2021, 140, 106302.	11.0	66

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19	Interactions between chloride and cement-paste materials. <i>Magnetic Resonance Imaging</i> , 2005, 23, 267-272.	1.8	65
20	<sup>29</sup> Si NMR Observation of an Amorphous Magnesium Silicate Formed during Impregnation of Silica with Mg(II) in Aqueous Solution. <i>The Journal of Physical Chemistry</i> , 1995, 99, 17273-17281.	2.9	64
21	The Coordination of Aluminum Ions in the Palygorskite Structure. <i>Clays and Clay Minerals</i> , 1992, 40, 457-461.	1.3	57
22	High-resolution <sup>29</sup> Si solid-state NMR study of silicon functionality distribution on the surface of silicas. <i>Magnetic Resonance Imaging</i> , 1996, 14, 911-913.	1.8	57
23	A multinuclear static NMR study of geopolymerisation. <i>Cement and Concrete Research</i> , 2015, 75, 104-109.	11.0	55
24	<sup>95</sup> Mo Magic Angle Spinning NMR at High Field: Improved Measurements and Structural Analysis of the Quadrupole Interaction in Monomolybdates and Isopolymolybdates. <i>Journal of Physical Chemistry B</i> , 2005, 109, 14033-14042.	2.6	54
25	Hydration Water and Swelling Behavior of Magadiite. The H <sup>+</sup> , Na <sup>+</sup> , K <sup>+</sup> , Mg <sup>2+</sup> , and Ca <sup>2+</sup> -Exchanged Forms. <i>Journal of Physical Chemistry B</i> , 2002, 106, 730-742.	2.6	52
26	Identification of fluorine sites at the surface of fluorinated <sup>13</sup> Al <sub>2</sub> O <sub>3</sub> by two-dimensional MAS NMR. <i>Solid State Nuclear Magnetic Resonance</i> , 2000, 16, 85-91.	2.3	51
27	Formation Mechanism of the Ga <sup>13</sup> Keggin Ion: A Combined EXAFS and NMR Study. <i>Journal of the American Chemical Society</i> , 2000, 122, 6048-6056.	13.7	51
28	The Support as a Chemical Reagent in the Preparation of WO <sub>x</sub> / <sup>13</sup> Al <sub>2</sub> O <sub>3</sub> Catalysts: Formation and Deposition of Aluminotungstic Heteropolyanions. <i>Journal of the American Chemical Society</i> , 1999, 121, 3377-3381.	13.7	49
29	Magnetic and dielectric properties of carbon nanotubes with embedded cobalt nanoparticles. <i>Carbon</i> , 2017, 114, 39-49.	10.3	45
30	Thermal stability and hcp to fcc allotropic transformation in supported Co metal catalysts probed near operando by ferromagnetic NMR. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 14598-14604.	2.8	39
31	<sup>29</sup> Si and <sup>27</sup> Al MAS NMR study of the zeolitization of kaolin by alkali leaching. <i>Clay Minerals</i> , 2003, 38, 49-61.	0.6	38
32	Interplay between silicate and hydroxide ions during geopolymerization. <i>Cement and Concrete Research</i> , 2019, 115, 426-432.	11.0	37
33	Synthesis, X-ray diffraction and solid-state <sup>31</sup> P magic angle spinning NMR study of β-tricalcium orthophosphate. <i>Journal of Materials Science: Materials in Medicine</i> , 1996, 7, 457-463.	3.6	36
34	Influence of layer charge on the hydroxyl stretching of trioctahedral clay minerals: A vibrational study of synthetic Na <sup>-</sup> and K-saponites. <i>American Mineralogist</i> , 2003, 88, 1801-1808.	1.9	36
35	Local Composition of Silicon Oxycarbides Obtained by Laser Spray Pyrolysis. <i>Chemistry of Materials</i> , 1997, 9, 632-639.	6.7	32
36	A reassessment of the <sup>29</sup> Si MAS-NMR spectra of sepiolite and aluminated sepiolite. <i>Clay Minerals</i> , 1994, 29, 313-318.	0.6	31

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37	Internal field $^{59}\text{Co}$ NMR study of cobalt-iron nanoparticles during the activation of $\text{CoFe}_2/\text{CaO}$ catalyst for carbon nanotube synthesis. <i>Journal of Catalysis</i> , 2018, 358, 62-70.	6.2	31
38	Al modified sepiolite as catalyst or catalyst support. <i>Catalysis Today</i> , 1992, 14, 125-140.	4.4	30
39	The intercalation process of N-alkyl amines or ammoniums within the structure of $\text{KTiNbO}_5$ . <i>Journal of Colloid and Interface Science</i> , 1989, 132, 337-351.	9.4	29
40	$^{129}\text{Xe}$ NMR study of Xe adsorption on multiwall carbon nanotubes. <i>Solid State Nuclear Magnetic Resonance</i> , 2005, 28, 135-141.	2.3	29
41	Chemical and Physicochemical Investigation of an Aminoalkylalkoxysilane As Strengthening Agent for Cellulosic Materials. <i>Biomacromolecules</i> , 2011, 12, 2082-2091.	5.4	29
42	Co metal nanoparticles deposition inside or outside multi-walled carbon nanotubes via facile support pretreatment. <i>Applied Surface Science</i> , 2018, 456, 657-665.	6.1	29
43	Hydrotalcite formation at the alumina/water interface during impregnation with Ni (II) aqueous solutions at neutral pH. <i>Applied Clay Science</i> , 1995, 10, 45-56.	5.2	28
44	Co/multi-walled carbon nanotubes/polyethylene composites for microwave absorption: Tuning the effectiveness of electromagnetic shielding by varying the components ratio. <i>Composites Science and Technology</i> , 2021, 207, 108731.	7.8	27
45	“Cooking the sample”: Radiofrequency induced heating during solid-state NMR experiments. <i>Solid State Nuclear Magnetic Resonance</i> , 2005, 28, 225-232.	2.3	26
46	Water content and porosity effect on hydrogen radiolytic yields of geopolymers. <i>Journal of Nuclear Materials</i> , 2017, 494, 138-146.	2.7	26
47	Analysis of the REDOR Signal and Inversion. <i>Journal of Magnetic Resonance</i> , 1998, 133, 273-280.	2.1	24
48	$^{129}\text{Xe}$ NMR investigation of catalytic filamentous carbon. <i>Microporous and Mesoporous Materials</i> , 2005, 81, 41-48.	4.4	24
49	Applicability of natural abundance $^{33}\text{S}$ solid-state NMR to cement chemistry. <i>Cement and Concrete Research</i> , 2006, 36, 1781-1783.	11.0	24
50	Impact of polyacrylamide adsorption on flow through porous siliceous materials: State of the art, discussion and industrial concern. <i>Journal of Colloid and Interface Science</i> , 2018, 531, 693-704.	9.4	24
51	Modification of the Surface Properties of Natural Phyllosilicate Sepiolite by Secondary Isomorphic Substitution. <i>Journal of Catalysis</i> , 1995, 151, 420-430.	6.2	23
52	The roles of hydration and evaporation during the drying of a cement paste by localized NMR. <i>Cement and Concrete Research</i> , 2013, 48, 86-96.	11.0	22
53	Competitive adsorption of PAM and HPAM on siliceous material. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2019, 579, 123673.	4.7	22
54	Reaction of HY Zeolite with Molecular Fluorine. <i>Journal of Catalysis</i> , 2001, 201, 80-88.	6.2	21

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55	Density Functional Theory Calculations of <sup>95</sup> Mo NMR Parameters in Solid-State Compounds. <i>ChemPhysChem</i> , 2009, 10, 3320-3329.	2.1	21
56	A new microporous material: aluminated sepiolite. <i>Microporous Materials</i> , 1995, 5, 135-142.	1.6	20
57	Dealumination and Aluminum Intercalation of Vermiculite. <i>Clays and Clay Minerals</i> , 1991, 39, 270-280.	1.3	18
58	On the silica edge, an NMR point of view. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 1999, 158, 157-163.	4.7	18
59	<sup>29</sup> Si and <sup>129</sup> Xe NMR of Mn <sup>2+</sup> doped silica xerogels. <i>Journal of Non-Crystalline Solids</i> , 1998, 231, 49-57.	3.1	16
60	Dealumination and surface fluorination of H-ZSM-5 by molecular fluorine. <i>Microporous and Mesoporous Materials</i> , 2001, 50, 41-52.	4.4	16
61	<sup>27</sup> Al MQ-MAS NMR as a Tool for Structure Determination in Nanocomposite Materials: The Nature of Al Pillars in Al <sup>13</sup> -Pillared Clays. <i>Journal of Physical Chemistry B</i> , 2002, 106, 4133-4138.	2.6	16
62	<sup>129</sup> Xe Nuclear Magnetic Resonance Study of Pitch-Based Activated Carbon Modified by Air Oxidation/Pyrolysis Cycles: A New Approach to Probe the Micropore Size. <i>Journal of Physical Chemistry B</i> , 2006, 110, 3055-3060.	2.6	16
63	Predicting the atmospheric carbonation of cementitious materials using fully coupled two-phase reactive transport modelling. <i>Cement and Concrete Research</i> , 2020, 130, 105966.	11.0	16
64	Spin- Hahn echoes in solids. <i>Solid State Nuclear Magnetic Resonance</i> , 1995, 5, 181-188.	2.3	13
65	A New Straightforward Approach to Generate Si-H Groups on Silica. <i>Journal of Colloid and Interface Science</i> , 1999, 215, 296-299.	9.4	13
66	Micrometer scale resolution of materials by stray-field Magnetic Resonance Imaging. <i>Journal of Magnetic Resonance</i> , 2011, 211, 60-66.	2.1	13
67	Effect of alumina modification on the structure of cobalt-containing Fischer-Tropsch synthesis catalysts according to internal-field <sup>59</sup> Co NMR data. <i>Journal of Structural Chemistry</i> , 2013, 54, 102-110.	1.0	13
68	MAS NMR Strategies for the Characterization of Supported Molybdenum Catalysts. <i>Applied Magnetic Resonance</i> , 2007, 32, 499-511.	1.2	12
69	Hydrophobization of Silica Nanoparticles in Water: Nanostructure and Response to Drying Stress. <i>Langmuir</i> , 2017, 33, 4709-4719.	3.5	12
70	Alumina/water interfacial phenomena during impregnation. <i>Studies in Surface Science and Catalysis</i> , 1995, 91, 169-184.	1.5	10
71	Is <sup>129</sup> Xe NMR a useful technique for probing the pore structure and surface properties of carbonaceous solids?. <i>Microporous and Mesoporous Materials</i> , 2007, 105, 118-123.	4.4	10
72	Superparamagnetic behaviour of metallic Co nanoparticles according to variable temperature magnetic resonance. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 2723-2730.	2.8	10

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73	Reinforcement properties of 3-aminopropylmethyldiethoxysilane and N-(2-Aminoethyl)-3-aminopropylmethyldimethoxysilane on polyurethane ester foam. <i>Polymer Degradation and Stability</i> , 2012, 97, 2340-2346.	5.8	9
74	Consolidation of artificially degraded polyurethane ester foam with aminoalkylalkoxysilanes. <i>Polymer Degradation and Stability</i> , 2016, 129, 106-113.	5.8	8
75	<sup>63</sup> Cu-NMR studies of crystalline and thin-film CuInSe <sub>2</sub> . <i>Thin Solid Films</i> , 2001, 387, 235-238.	1.8	7
76	Design of Al <sub>2</sub> O <sub>3</sub> /CoAlO <sub>3</sub> Porous Ceramometal for Multiple Applications as Catalytic Supports. <i>Advanced Materials Research</i> , 0, 702, 79-87.	0.3	7
77	Evolution of the microstructure of unconsolidated geopolymers by thermoporometry. <i>Journal of the American Ceramic Society</i> , 2021, 104, 1581-1591.	3.8	7
78	Solid-state NMR study of [(Ph <sub>3</sub> SnF) <sub>2</sub> (Ph <sub>3</sub> SnO <sub>2</sub> PPh <sub>2</sub> )], a novel coordination polymer prepared from Bu <sub>4</sub> N[Ph <sub>3</sub> SnF <sub>2</sub> ] and [Ph <sub>3</sub> SnOPPh <sub>2</sub> OSnPh <sub>3</sub> ](O <sub>3</sub> SCF <sub>3</sub> ). <i>Applied Organometallic Chemistry</i> , 2004, 18, 353-358.	3.5	6
79	Evaporation of an emulsion trapped in a yield stress fluid. <i>European Physical Journal E</i> , 2009, 28, 463-468.	1.6	6
80	Model synthetic pastes for low pH cements. <i>Cement and Concrete Research</i> , 2020, 136, 106168.	11.0	6
81	<sup>129</sup> Xe NMR study of the localization of PdCl <sub>2</sub> supported on carbon nanotubes. <i>Reaction Kinetics and Catalysis Letters</i> , 2007, 90, 355-364.	0.6	5
82	Boiling of an emulsion in a yield stress fluid. <i>Physical Review E</i> , 2010, 82, 051502.	2.1	5
83	Extreme Enhancement of Carbon Hydrogasification via Mechanochemistry. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	13.8	5
84	Organic-inorganic phase interaction in A1SBA-15 mesoporous solids by double resonance NMR spectroscopy. <i>Studies in Surface Science and Catalysis</i> , 2002, , 423-428.	1.5	4
85	Magnetic structure and internal field nuclear magnetic resonance of cobalt nanowires. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 11898-11909.	2.8	4
86	Retarded transfers of an emulsified two-component oil phase. <i>Physical Review E</i> , 2011, 83, 031403.	2.1	2
87	Extreme Enhancement of Carbon Hydrogasification via Mechanochemistry. <i>Angewandte Chemie</i> , 2022, 134, .	2.0	1
88	High-Resolution Solid-State Nmr: a Versatile Tool for the Study of Al-O-P Clusters. <i>Phosphorus, Sulfur and Silicon and the Related Elements</i> , 2001, 168, 243-248.	1.6	0
89	Neoformation of DLH During Impregnation of $\gamma$ -Alumin. <i>European Physical Journal Special Topics</i> , 1997, 7, C2-957-C2-958.	0.2	0